

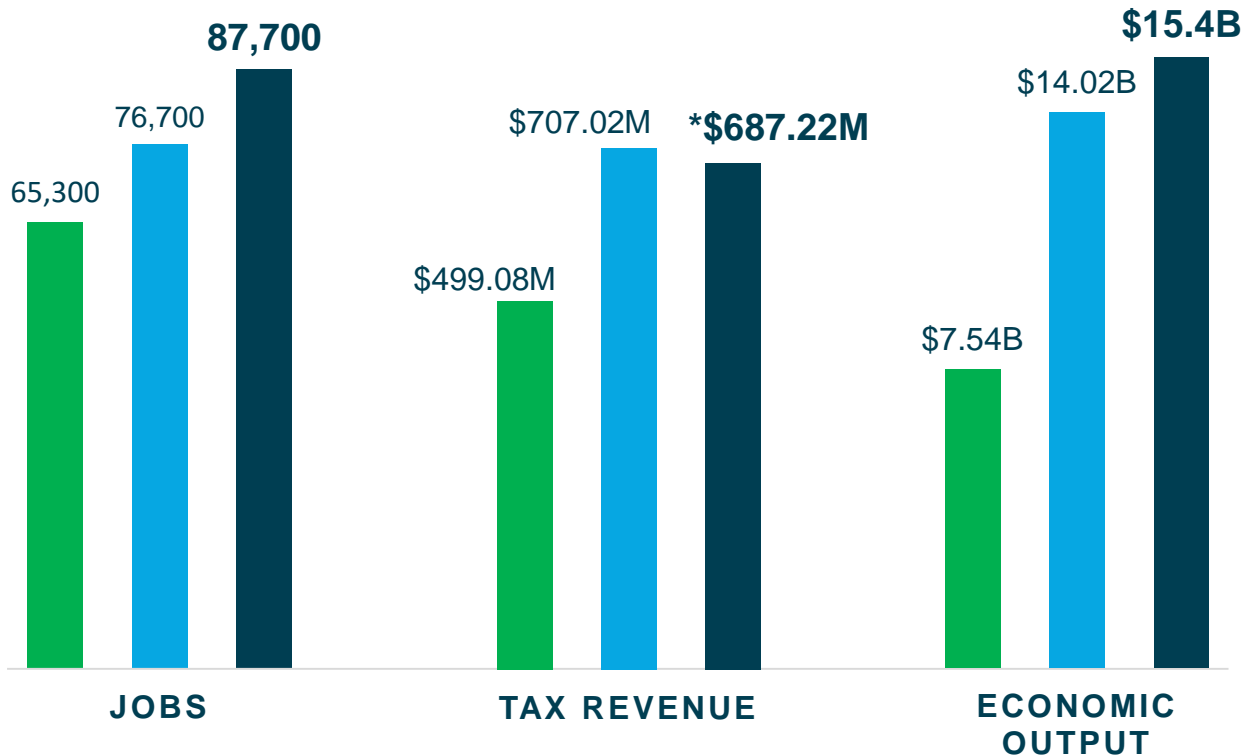


Joint Appropriations Committee, Transportation

March 21, 2019

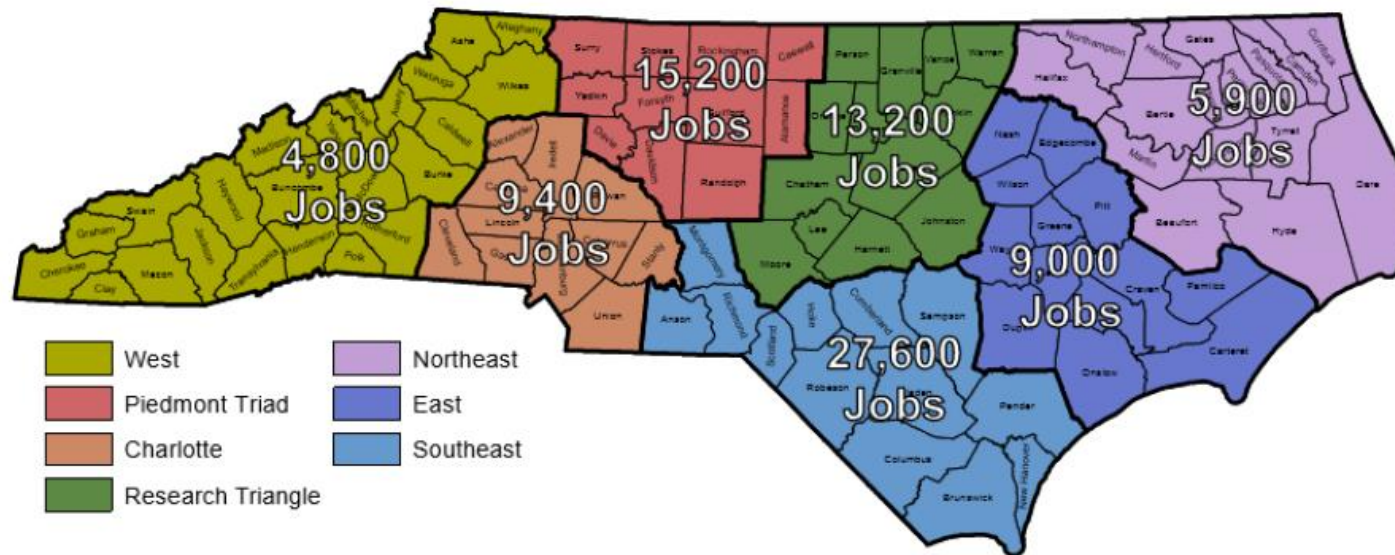
Ports Support NC's Economy

■ 2011 Study ■ 2014 Study ■ 2018 Study



Economic Contribution of the North Carolina Ports
Institute for Transportation Research and Education, N.C. State University

Ports Support All of North Carolina



Annual economic contribution to the state's economy associated with goods moving through NC Ports

\$15.4 billion+

NC Ports Fast Facts

- Two locations serving the Carolinas
 - Over 5,000 container gate moves per week
 - Over 4 million tons of general cargo per year
 - 965 ship calls a year
- Directly employ 218
- Financial summary
 - Annual revenue \$50 million
 - Annual cash generation \$14 million
 - Profit \$4.1 million (FY18 results)
- Full suite of terminal services
 - Container, bulk, breakbulk and Ro/Ro
 - Warehousing logistics
 - Refrigerated cargo
 - Heavy lift, project, logistics and military cargo

Performance Highlights

Wilmington Container Business

- Record FY18 – increased container volume 38% over FY17
- Refrigerated Containers tripled '14 –'18
- 12 Shipping Carriers calling Wilmington vs. 6 in '14
- 45 port combinations vs. 12 in '14
- Restored intermodal train service (CSX)

Wilmington General Cargo

- Up 25% '14 – '18 (61% without grain)

Morehead City General Cargo

- Record FY18 – increased general cargo volume 20% over FY17
- Annual Tons up ~75% from '14 –'18
- Moved 85 fuselages from GTP in CY18 (Spirit AeroSystems)

Port of Morehead City



Liebherr LPS 420 rail-mounted gantry crane to arrive summer 2019

- **Bulk, breakbulk and Ro/Ro**
- 128 acres, plus an additional 150 acres on Radio Island
- Navigation channel: 45 ft.
- 9 Berths with 5,366 ft. of wharf frontage
- More than 1 million sq. ft. of storage space
- Rail served by Norfolk Southern
- Routinely service military cargo vessels (26 in CY18)

Port of Wilmington

- **Containers, bulk, breakbulk and Ro/Ro**
- 284 acres
- Navigation channel: 42 ft.
- Accommodate 1,165 ft. LOA & 158 ft. beam vessels
- On dock intermodal rail (CSX)
- 1 million sq. ft. of covered storage & 125 acres of open storage
- NC Ports employees perform terminal operations



How Do We Compete?

SAFE, FAST, & EFFICIENT OPERATIONS

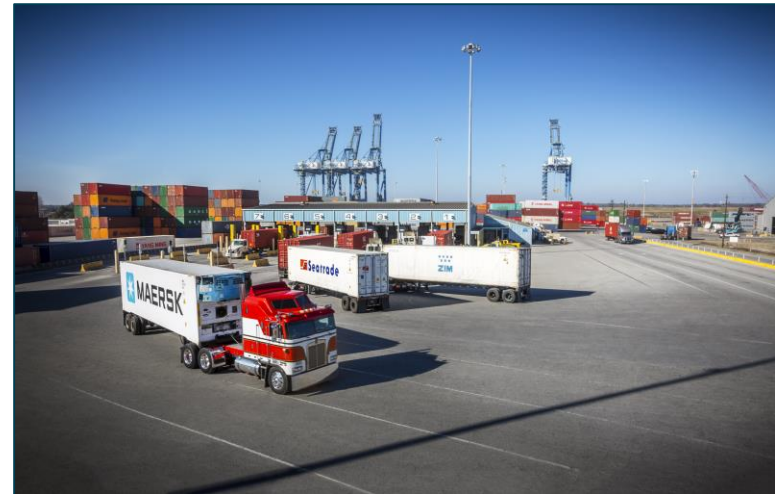
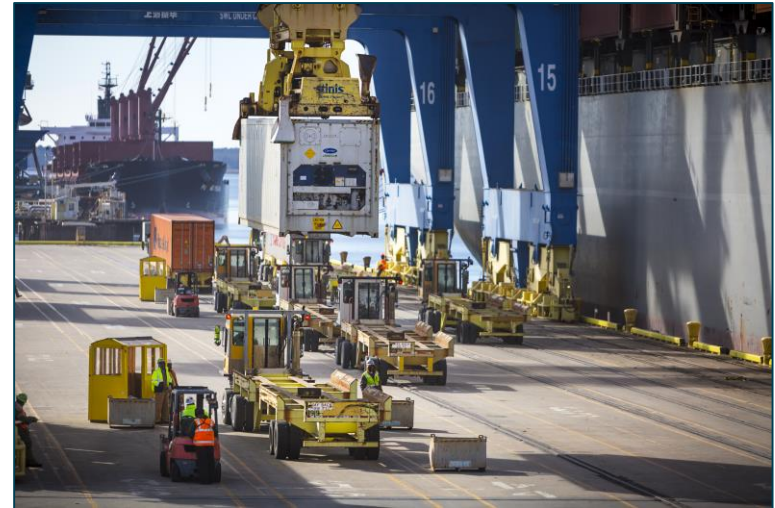
Vessel productivity

- Last 12 month average: 40 net crane moves/hr.

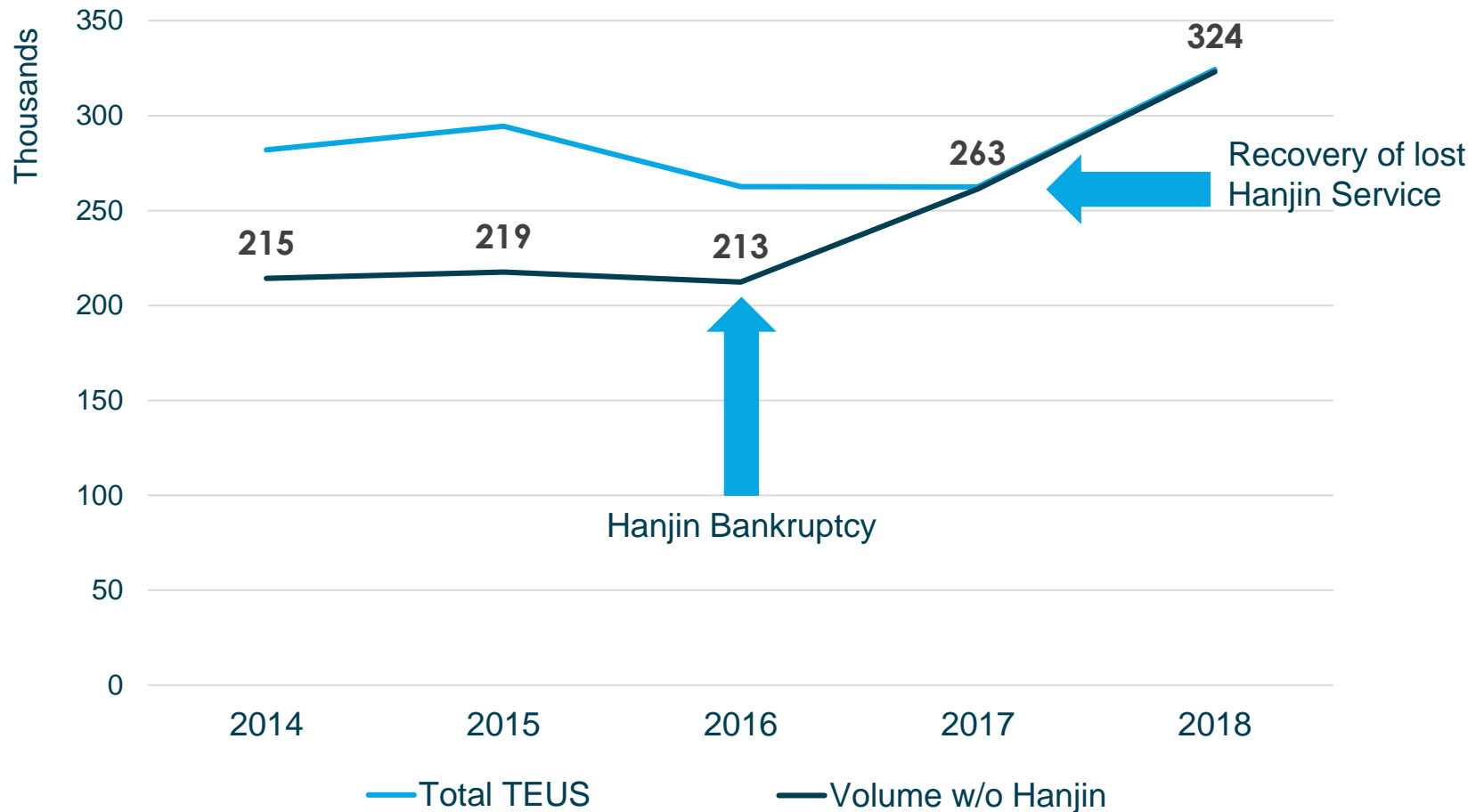
Gate turn time productivity

- Last 12 month dual truck turn time: 32 minutes
- Last 12 month single truck turn time: 19 minutes
- Best terminal rates on U.S. East Coast; flexible contract terms
- Port of Wilmington gateway delivers millions of dollars in lower truck costs
- Superior customer service

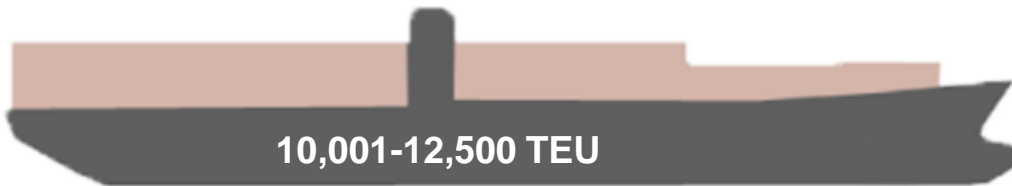
Best operational performance on the East and Gulf coasts



Container Volume History



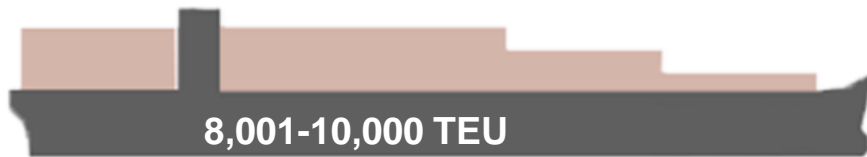
Container Shipping Specifications



10,001-12,500 TEU



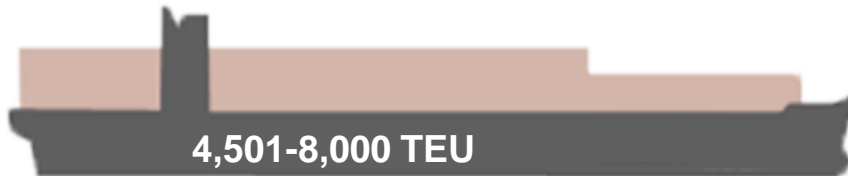
Length: 1,100-1,175 ft (366+ m)
Beam: 161-170 ft (49-52 m)
Designed Draft: 45-50 ft (13-15 m)



8,001-10,000 TEU



Length: 984-1,100 ft (300-335 m)
Beam: 158-161 ft (48-49 m)
Designed Draft: 41-48 ft (12-14m)



4,501-8,000 TEU



Length: 965-984 ft (294-300 m)
Beam: 141 ft (43 m)
Designed Draft: 41-45 ft (12 -14 m)



3,400-4,500 TEU



Length: 951-965 ft (290-294 m)
Beam: 105 ft (32 m)
Designed Draft: 41 ft (12.5 m)

* Most vessels that arrive at the Port of Wilmington do not arrive at designed draft

Port of Wilmington



Big Ship Ready

Capital Spending

	16-17	18-19	20-21	22-23
Projects Completed	\$42.2M	\$19.4M	--	--
Turning Basin Expansion – Phase 1	\$27.8M	\$0.5M	--	--
Berth Reconstruction	\$14.4M	\$18.9M	--	--
Projects Underway	\$7.3M	\$69.1M	\$19.0M	--
Berth Reconstruction	--	\$26.7M	\$4.2M	--
Neo-Panamax Cranes	\$7.3M	\$32.1M	\$6.2M	--
Yard & Gate Improvements	--	\$10.3M	\$8.6M	--
Projects in Planning Stage	--	\$4.4M	\$59.0M	\$104.0M
Turning Basin Expansion – Phase 2	--	\$3.0M	\$16.9M	--
Yard & Gate Improvements	--	\$1.4M	\$42.1M	\$104.0M
Navigation Contributions	--	\$10.4M	\$7.1M	--
Expansion Totals	\$49.4M	\$103.2M	\$85.1M	\$104.0M

Improving Road Access

Future projects designed to improve commercial truck access

Carolina Beach Road Improvements

- Upgrade US 421/Carolina Beach Rd. from US 421/Burnett Blvd. to US 117/Shipyard Blvd.

Cape Fear River Crossing

- 9.5 mile proposed road from US 17 in Brunswick County to US 421 in Wilmington which includes a new bridge over the Cape Fear River
- Six options currently being explored (most of which are to the south of the Port of Wilmington)
- Bridge proposal would allow for 215 ft. clearance

Improving Rail Access



Daily, reliable, cost competitive intermodal service connecting Wilmington and Charlotte



QCE Advantages

- Shortest direct rail service to Greater Charlotte region
- Lowers transportation costs for businesses
- Reduces the number of trucks on roadways, therefore reducing emissions
- No dwell times at Port of Wilmington or Charlotte Intermodal Terminal (CIT)
- Flexible staging at CIT
- Shortens first and last mile truck transit

Improving Air Draft Restriction

Project underway to increase allowable air draft



- Raise existing power lines 41 ft. to allow for 212 ft. clearance

Total project cost: \$11M

Allowable air draft at other East Coast ports

- Port of Charleston – 186 ft.
- Port of Savannah – 186 ft.
- Port of NY-NJ – 215 ft.

Port of Wilmington Investments



Key Projects

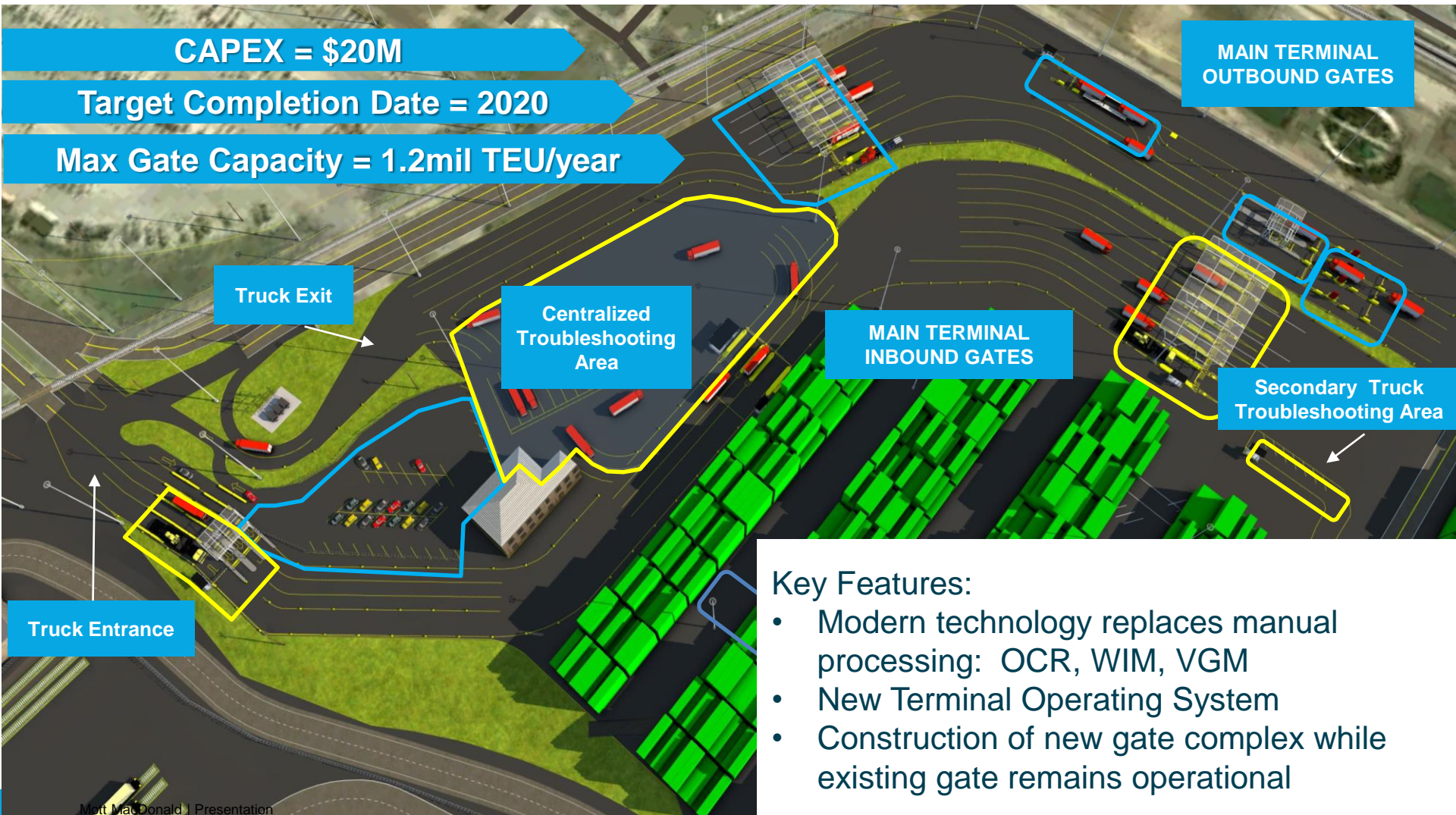
- Container yard expansion
- Refrigerated container yard
- New, modernized gate complex
- New terminal operating system

Modern Gate Complex

CAPEX = \$20M

Target Completion Date = 2020

Max Gate Capacity = 1.2mil TEU/year



Key Features:

- Modern technology replaces manual processing: OCR, WIM, VGM
- New Terminal Operating System
- Construction of new gate complex while existing gate remains operational

Mott MacDonald | Presentation

North Carolina Ports

Upgraded Container Paving

ASPHALT PAVING CAPEX = \$126M (TOTAL)



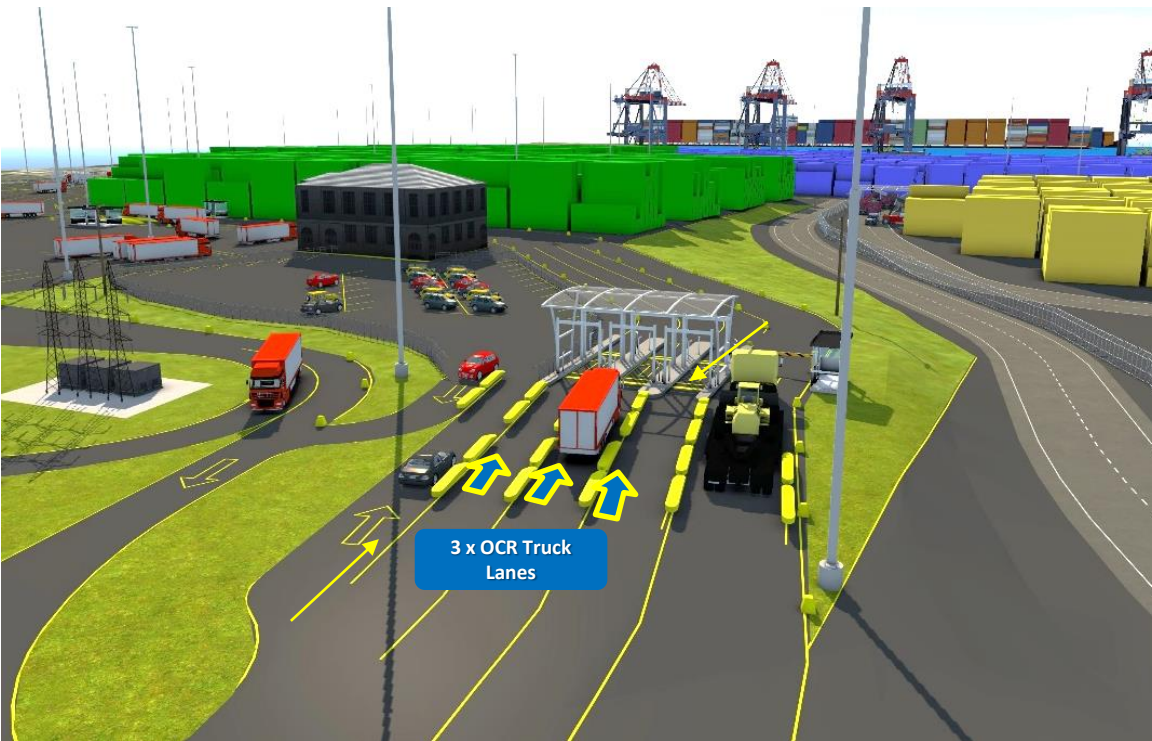
New Refrigerated Container Yard

CAPEX = \$22.4M TOTAL, split in to 2 phases

Phase 1 = \$10M (Complete in 2019)



Terminal Technology



Terminal Operating System

- Single foundational terminal operating system (TOS) application for bulk, breakbulk, and container operations.

Disaster Recovery Plan

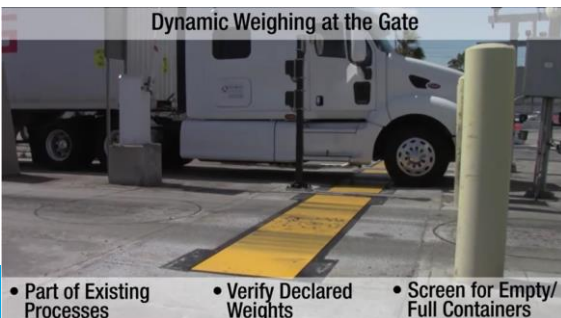
- Offsite data center to serve as fully redundant computing environment for the TOS and core port applications

Network

- Fiber ring with new switches and routers with a series of segmented star configurations enabling secure high-speed computing throughout the port terminals.

Gate Operating System

- Integrate data from the TWIC readers, scales, optical character readers (OCR) cameras, and kiosks



Keys to Long-term Supply Chain Success

- Turning basin
- Berth renovations
- Container terminal and yard enhancements
- Road, rail and air draft improvements
- Wilmington Navigational Channel improvements

East Coast Harbor Projects

Navigational Harbor	Starting Depth	Authorized Depth	Project Cost
Boston Harbor	40 feet	47 feet	\$301M
NY-NJ Harbor	40 feet	50 feet	\$2.1B
Delaware River	40 feet	45 feet	\$310M
Norfolk Harbor	50 feet	55 feet	\$272M
Savannah River	42 feet	47 feet	\$973M
Charleston Harbor	45 feet	52 feet	\$529M
Jacksonville Harbor	40 feet	47 feet	\$484M



Wilmington Harbor Enhancements

- Conducting Section 203 study
- Study to conclude in spring 2019

Benefits of an enhanced harbor

- Maintain competitiveness and attract more business
- Allow larger deep-draft containerships to access Port of Wilmington
- Every super post-Panamax container service calling Wilmington from the Far East has a direct impact of \$3.7B



Think Global. Prosper Local.

Importance of capital investments

- Enables customers to make long-term plans
- Enables NC Ports' growth to meet and exceed customer demand
- Directly benefits local, regional and statewide economy
- Places NC in the global supply chain

The image is a dense collage of various corporate logos and brand names, arranged in a grid-like fashion. The logos are of different sizes and colors, representing a wide range of industries and companies. Some of the prominent logos include:

- Top Row:** VOLVO, ABB, HOOKER FURNITURE, EVONIK INDUSTRIES, Bausch & Lomb.
- Second Row:** Bassett, BÖHLER UDDEHOLM, JENMAR, AERUS, kp, klöckner pentaplast, GLOBAL SAFETY TEXTILES, BUSCH PRECISION.
- Third Row:** WEBTEC, RAXIT INTERNATIONAL, TRW, Keystone, MOUNTAINEER, BRIDGESTONE, armacell, LIBERTY HARDWARE, Powell, daedong.
- Fourth Row:** ITG VOMA CORPORATION, GRAFTech, BERNARDS, HICKORY SPRINGS, QUICK-STEP, FMC Lithium, Thomasville, JOHN DEERE, HITACHI, ROHM HAAS, JAGUAR, ALLIANCEOne.
- Fifth Row:** EASTMAN, ALCOA, aPeram, P&G, LEXINGTON HOME BRANDS, HANESbrands INC, HERBALIFE, MANNINGTON, Laneventure, LAND-ROVER, Lacouet craft USA.
- Sixth Row:** LS TRACTOR, Shurtape, LOWE'S, blum, Broyhill, Kmart, UNIVERSAL FURNITURE, V W, VARIETY WHOLESALERS INCORPORATED, R.J. REYNOLDS, GKN Driveline.
- Seventh Row:** FINE FURNITURE DESIGN, Coll-Gainer, Clariant, Harris Teeter, BIC, HYOSUNG, Consolidated Textiles, Legacy, Verbatim, COOPER Tools, Electrolux, MOEN.
- Eighth Row:** Trojan, Jowat, EnerSys, Metglas, ELMER'S, Energizer, WEST POINT HOME, VALLEY PROTEINS, INC., GOOD YEAR, Smithfield, BOSCH.
- Ninth Row:** MAXXIS, TIMCAL, BLACK & DECKER, agy, Tognum, Purolator, SOFFE, COTY, ACME.
- Tenth Row:** HENG SHIN TIRE, BARBE, Sims POTTERY, Wera, Glatfelter, FieldTurf, IMERYS, AQUASOL, ZF, QVC, MSI, INTERNATIONAL PAPER, HANAMINT, TM TRACTORS, LEATHER ITALIA.

The logos are arranged in a way that they overlap and are interspersed with each other, creating a complex and visually busy composition. The background is a light gray with a subtle grid pattern.

North Carolina Ports